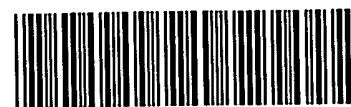


doc

0870/0420

0325

1612



ENTEREC

OIPE

1642

PH 8

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002 P.5  
 TIME: 14:55:23

Input Set : A:\Cura-451.app  
 Output Set: N:\CRF3\03192002\I976782.raw

3 <110> APPLICANT: Grosse et al  
 5 <120> TITLE OF INVENTION: Novel Proteins and Nucleic Acids Encoding Same  
 7 <130> FILE REFERENCE: 21402-157  
 9 <140> CURRENT APPLICATION NUMBER: 09/976,782  
 10 <141> CURRENT FILING DATE: 2001-10-12  
 12 <150> PRIOR APPLICATION NUMBER: 60/240,113  
 13 <151> PRIOR FILING DATE: 2000-10-12  
 15 <150> PRIOR APPLICATION NUMBER: 60/240,662  
 16 <151> PRIOR FILING DATE: 2000-10-16  
 18 <150> PRIOR APPLICATION NUMBER: 60/240,732  
 19 <151> PRIOR FILING DATE: 2000-10-16  
 21 <150> PRIOR APPLICATION NUMBER: 60/240,625  
 22 <151> PRIOR FILING DATE: 2000-10-16  
 24 <150> PRIOR APPLICATION NUMBER: 60/240,703  
 25 <151> PRIOR FILING DATE: 2000-10-16  
 27 <150> PRIOR APPLICATION NUMBER: 60/241,190  
 28 <151> PRIOR FILING DATE: 2000-10-16  
 30 <150> PRIOR APPLICATION NUMBER: 60/240,637  
 31 <151> PRIOR FILING DATE: 2000-10-16  
 33 <150> PRIOR APPLICATION NUMBER: 60/240,669  
 34 <151> PRIOR FILING DATE: 2000-10-16  
 36 <150> PRIOR APPLICATION NUMBER: 60/262,455  
 37 <151> PRIOR FILING DATE: 2001-01-18  
 39 <150> PRIOR APPLICATION NUMBER: 60/240,648  
 40 <151> PRIOR FILING DATE: 2000-10-16  
 42 <160> NUMBER OF SEQ ID NOS: 127  
 44 <170> SOFTWARE: PatentIn Ver. 2.1  
 46 <210> SEQ ID NO: 1  
 47 <211> LENGTH: 1345  
 48 <212> TYPE: DNA  
 49 <213> ORGANISM: Homo sapiens  
 51 <400> SEQUENCE: 1  
 52 cctggtcctg ccgctgcgcc cgcccgccat ggtgtcccg gaccaggtc acctgggccc 60  
 53 caagtatgtg ggcctctggtg acttcaagtc ccggacggac gaggagctga gcttccgcgc 120  
 54 gggggacgtc ttccacgtgg ccaggaagga ggagcagtgg tgggtggcca cgctgctgga 180  
 55 cgaggcgggt ggggccgtgg ccaggggcta tgtgccccac aactacctgg ccgagaggga 240  
 56 gacggtggag tcggaaccgt ggttcttttg ctgcattccc cgctcggaag ctgtgcgtcg 300  
 57 gctgcaggcc gagggcaacg ccacgggcgc cttcctgatc agggtcagcg agaagccgag 360  
 58 tgccgactac gtccgtgtcg tgccggacac gcaggctgtg cggcactaca agatctggcg 420  
 59 gcgtgccggg ggccggctgc acctgaacga ggcggtgtcc ttcctcagcc tgcccagact 480  
 60 tgtgaactac cacagggcc agagcctgtc ccacggcctg cggetggccg cgccctgccg 540  
 61 gaagcacgag cctgagcccc tgccccattg ggatgactgg gagaggccga gggaggagtt 600  
 62 cacgctctgc aggaagctgg ggtccggcta ctttggggag gtcttcgagg ggctctggaa 660

RECEIVED

APR 11 2002

TECH CENTER 1600/2900

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002

TIME: 14:55:23

Input Set : A:\Cura-451.app

Output Set: N:\CRF3\03192002\I976782.raw

```

63 agaccggggtc caggtggcca ttaaggtgat ttctcgagac aacctcctgc accagcagat 720
64 gctgcagtcg gagatccagg ccatgaagaa gctgcggcac aaacacatcc tggcgctgta 780
65 cgccgtgggtg tccgtggggg accccgtgta catcatcacg gagctcatgg ccaagggcag 840
66 cctgctggag ctgctccgag actctgatga gaaagtcctg cccgtttcgg agctgctgga 900
67 catcgctggg caggtggctg agggcatgtg ttacctggag tcgcagaatt acatccaccg 960
68 ggacctggcc gccaggaaca tctcgtcgg ggaaaacacc ctctgcaaag ttgggggactt 1020
69 cgggttagcc aggttatca agtggacggc ccctgaagcg ctctcccag gccattactc 1080
70 caccaaacc gacgtctggt cctttgggat tctcctgcat gagatgttca gcaggggtca 1140
71 ggtgccctac ccaggcatgt ccaaccatga ggccttctg aggggtggacg ccggctaccg 1200
72 catgccctgc cctctggagt gcccggccag cgtgcacaag ctgatgctga catgctggtg 1260
73 cagggacccc gagcagagac cctgcttcaa ggccctgcgg gagaggctct ccagcttcac 1320
74 cagctacgag aaccggacct gagct 1345

```

77 &lt;210&gt; SEQ ID NO: 2

78 &lt;211&gt; LENGTH: 437

79 &lt;212&gt; TYPE: PRT

80 &lt;213&gt; ORGANISM: Homo sapiens

82 &lt;400&gt; SEQUENCE: 2

```

83 Met Val Ser Arg Asp Gln Ala His Leu Gly Pro Lys Tyr Val Gly Leu
84   1           5           10           15
86 Trp Asp Phe Lys Ser Arg Thr Asp Glu Glu Leu Ser Phe Arg Ala Gly
87           20           25           30
89 Asp Val Phe His Val Ala Arg Lys Glu Glu Gln Trp Trp Trp Ala Thr
90           35           40           45
92 Leu Leu Asp Glu Ala Gly Gly Ala Val Ala Gln Gly Tyr Val Pro His
93           50           55           60
95 Asn Tyr Leu Ala Glu Arg Glu Thr Val Glu Ser Glu Pro Trp Phe Phe
96   65           70           75           80
98 Gly Cys Ile Ser Arg Ser Glu Ala Val Arg Arg Leu Gln Ala Glu Gly
99           85           90           95
101 Asn Ala Thr Gly Ala Phe Leu Ile Arg Val Ser Glu Lys Pro Ser Ala
102           100           105           110
104 Asp Tyr Val Leu Ser Val Arg Asp Thr Gln Ala Val Arg His Tyr Lys
105           115           120           125
107 Ile Trp Arg Arg Ala Gly Gly Arg Leu His Leu Asn Glu Ala Val Ser
108           130           135           140
110 Phe Leu Ser Leu Pro Glu Leu Val Asn Tyr His Arg Ala Gln Ser Leu
111 145           150           155           160
113 Ser His Gly Leu Arg Leu Ala Ala Pro Cys Arg Lys His Glu Pro Glu
114           165           170           175
116 Pro Leu Pro His Trp Asp Asp Trp Glu Arg Pro Arg Glu Glu Phe Thr
117           180           185           190
119 Leu Cys Arg Lys Leu Gly Ser Gly Tyr Phe Gly Glu Val Phe Glu Gly
120           195           200           205
122 Leu Trp Lys Asp Arg Val Gln Val Ala Ile Lys Val Ile Ser Arg Asp
123           210           215           220
125 Asn Leu Leu His Gln Gln Met Leu Gln Ser Glu Ile Gln Ala Met Lys
126 225           230           235           240
128 Lys Leu Arg His Lys His Ile Leu Ala Leu Tyr Ala Val Val Ser Val
129           245           250           255

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002

TIME: 14:55:23

Input Set : A:\Cura-451.app

Output Set: N:\CRF3\03192002\I976782.raw

```

131 Gly Asp Pro Val Tyr Ile Ile Thr Glu Leu Met Ala Lys Gly Ser Leu
132          260          265          270
134 Leu Glu Leu Leu Arg Asp Ser Asp Glu Lys Val Leu Pro Val Ser Glu
135          275          280          285
137 Leu Leu Asp Ile Ala Trp Gln Val Ala Glu Gly Met Cys Tyr Leu Glu
138          290          295          300
140 Ser Gln Asn Tyr Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val
141 305          310          315          320
143 Gly Glu Asn Thr Leu Cys Lys Val Gly Asp Phe Gly Leu Ala Arg Leu
144          325          330          335
146 Ile Lys Trp Thr Ala Pro Glu Ala Leu Ser Arg Gly His Tyr Ser Thr
147          340          345          350
149 Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu His Glu Met Phe Ser
150          355          360          365
152 Arg Gly Gln Val Pro Tyr Pro Gly Met Ser Asn His Glu Ala Phe Leu
153          370          375          380
155 Arg Val Asp Ala Gly Tyr Arg Met Pro Cys Pro Leu Glu Cys Pro Pro
156 385          390          395          400
158 Ser Val His Lys Leu Met Leu Thr Cys Trp Cys Arg Asp Pro Glu Gln
159          405          410          415
161 Arg Pro Cys Phe Lys Ala Leu Arg Glu Arg Leu Ser Ser Phe Thr Ser
162          420          425          430
164 Tyr Glu Asn Pro Thr
165          435
168 <210> SEQ ID NO: 3
169 <211> LENGTH: 1682
170 <212> TYPE: DNA
171 <213> ORGANISM: Homo sapiens
173 <400> SEQUENCE: 3
174 tcctgcagggt ccctgtcact tctctgatag ctcccagctc gctctctgca gccatgattg. 60
175 ccagacagca gtgtgtccga ggcgggcccc ggggcttcag ctgtgactcg gccattgtag 120
176 gcggtggcaa gagaggtgcc ttcagctcag tctccatgtc tggaggtgct ggccgatgct 180
177 cttctggggg atttggcagc agaagcctct acaacctcag ggggaacaaa agcatctcca 240
178 tgagtgtggc taggtcacga caaggtgcct gctttggggg tgctggaggc tttggcactg 300
179 gtggctttgg tgggtgattt gggggctcct tcagtggtaa ggggtggcct ggcttccccg 360
180 tctgccccgc tgggggaatt caggaggtca ccatcaacca gagcttgctc acccccctcc 420
181 acgtggagat tgacctgag atccagaaag tccggacgga agagcgcgaa cagatcaagc 480
182 tcctcaacaa caagtttgcc tccttcatcg agcaggtgcg gttcctggag caacagaata 540
183 aggtgctgga gaccaagtgg gcactgctgc aggagcaggg ccagaacttg ggtgtcacca 600
184 ggaacaacct ggagccccct tttgaggcct acctgggtag catgcggagc acgctggaca 660
185 gacttcagag cgagcggggg aggtgggact cagagctcag gaacgtgcag gaccttgtgg 720
186 aggacttcaa gaacaagtat gaagaggaga tcaacaaacg cacagcagcc gagaatgact 780
187 ttgtggtcct aaagaagtat gagacagagc tggccatgcg ccagtctgtg gagaacgaca 840
188 tccatgggct ccgcaaggct attgatgaca ccaatatcac acgactgcag ctggagacag 900
189 agatcgaggc tctcaaggag gagctgctct tcatgaagaa gaaccacgaa gaggagctgg 960
190 gccagctcca gaccaggcc agcgacacgt ctgtggtgct gtccatggac aacaaccgct 1020
191 acctggactt cagcagcatc atcactgagg tccgcgcccg gtacgaggag atcgcccgga 1080
192 gcagcaaggc tgaggctgag gccttgacc agaccaaggt gcaggaactt cagggtgtctg 1140
193 cccagcttca tggggacagg atgcaggaaa cgaaagtcca gatctctcag ctacaccaag 1200

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002

TIME: 14:55:23

Input Set : A:\Cura-451.app

Output Set: N:\CRF3\03192002\I976782.raw

```

194 agattcagag gctgcagagt cagactgaga acctcaagaa gcagagggct tccctggagg 1260
195 ccgccattgc agatgccgag cagcgtggag agctggccat taaggatgcc aacgccaagt 1320
196 tgtccgagct ggaggccgcc ctgcagcggg ccaagcagga catggcgcgg cagctgcgtg 1380
197 agtaccagga gctgatgaac gtcaagctgg ccctggacat cgagatcgcc acctacagga 1440
198 agctgctgga gggcgaggag agccggatgt ctggagaatg ccagagtgcc gtgagcatcg 1500
199 ctgtggtcag cggtagcacc agcactggag gcatcagcgg aggattagga agtgggtccg 1560
200 ggtttggcct gagtagtggc tttggctccg gctctggaag tggctttggg tttggtggca 1620
201 gtgtctctgg cagttccagc agcaagatca tctctaccac caccctgaac aagagacgat 1680
202 ga

```

205 &lt;210&gt; SEQ ID NO: 4

206 &lt;211&gt; LENGTH: 542

207 &lt;212&gt; TYPE: PRT

208 &lt;213&gt; ORGANISM: Homo sapiens

210 &lt;400&gt; SEQUENCE: 4

```

211 Met Ile Ala Arg Gln Gln Cys Val Arg Gly Gly Pro Arg Gly Phe Ser
212 1 5 10 15
214 Cys Asp Ser Ala Ile Val Gly Gly Gly Lys Arg Gly Ala Phe Ser Ser
215 20 25 30
217 Val Ser Met Ser Gly Gly Ala Gly Arg Cys Ser Ser Gly Gly Phe Gly
218 35 40 45
220 Ser Arg Ser Leu Tyr Asn Leu Arg Gly Asn Lys Ser Ile Ser Met Ser
221 50 55 60
223 Val Ala Arg Ser Arg Gln Gly Ala Cys Phe Gly Gly Ala Gly Gly Phe
224 65 70 75 80
226 Gly Thr Gly Gly Phe Gly Gly Gly Phe Gly Gly Ser Phe Ser Gly Lys
227 85 90 95
229 Gly Gly Pro Gly Phe Pro Val Cys Pro Ala Gly Gly Ile Gln Glu Val
230 100 105 110
232 Thr Ile Asn Gln Ser Leu Leu Thr Pro Leu His Val Glu Ile Asp Pro
233 115 120 125
235 Glu Ile Gln Lys Val Arg Thr Glu Glu Arg Glu Gln Ile Lys Leu Leu
236 130 135 140
238 Asn Asn Lys Phe Ala Ser Phe Ile Glu Gln Val Arg Phe Leu Glu Gln
239 145 150 155 160
241 Gln Asn Lys Val Leu Glu Thr Lys Trp Ala Leu Leu Gln Glu Gln Gly
242 165 170 175
244 Gln Asn Leu Gly Val Thr Arg Asn Asn Leu Glu Pro Leu Phe Glu Ala
245 180 185 190
247 Tyr Leu Gly Ser Met Arg Ser Thr Leu Asp Arg Leu Gln Ser Glu Arg
248 195 200 205
250 Gly Arg Leu Asp Ser Glu Leu Arg Asn Val Gln Asp Leu Val Glu Asp
251 210 215 220
253 Phe Lys Asn Lys Tyr Glu Glu Glu Ile Asn Lys Arg Thr Ala Ala Glu
254 225 230 235 240
256 Asn Asp Phe Val Val Leu Lys Lys Tyr Glu Thr Glu Leu Ala Met Arg
257 245 250 255
259 Gln Ser Val Glu Asn Asp Ile His Gly Leu Arg Lys Val Ile Asp Asp
260 260 265 270
262 Thr Asn Ile Thr Arg Leu Gln Leu Glu Thr Glu Ile Glu Ala Leu Lys

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002

TIME: 14:55:23

Input Set : A:\Cura-451.app

Output Set: N:\CRF3\03192002\I976782.raw

```

263          275          280          285
265 Glu Glu Leu Leu Phe Met Lys Lys Asn His Glu Glu Glu Leu Gly Gln
266          290          295          300
268 Leu Gln Thr Gln Ala Ser Asp Thr Ser Val Val Leu Ser Met Asp Asn
269 305          310          315          320
271 Asn Arg Tyr Leu Asp Phe Ser Ser Ile Ile Thr Glu Val Arg Ala Arg
272          325          330          335
274 Tyr Glu Glu Ile Ala Arg Ser Ser Lys Ala Glu Ala Glu Ala Leu Tyr
275          340          345          350
277 Gln Thr Lys Val Gln Glu Leu Gln Val Ser Ala Gln Leu His Gly Asp
278          355          360          365
280 Arg Met Gln Glu Thr Lys Val Gln Ile Ser Gln Leu His Gln Glu Ile
281          370          375          380
283 Gln Arg Leu Gln Ser Gln Thr Glu Asn Leu Lys Lys Gln Arg Ala Ser
284 385          390          395          400
286 Leu Glu Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly Glu Leu Ala Ile
287          405          410          415
289 Lys Asp Ala Asn Ala Lys Leu Ser Glu Leu Glu Ala Ala Leu Gln Arg
290          420          425          430
292 Ala Lys Gln Asp Met Ala Arg Gln Leu Arg Glu Tyr Gln Glu Leu Met
293          435          440          445
295 Asn Val Lys Leu Ala Leu Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu
296          450          455          460
298 Leu Glu Gly Glu Glu Ser Arg Met Ser Gly Glu Cys Gln Ser Ala Val
299 465          470          475          480
301 Ser Ile Ala Val Val Ser Gly Ser Thr Ser Thr Gly Gly Ile Ser Gly
302          485          490          495
304 Gly Leu Gly Ser Gly Ser Gly Phe Gly Leu Ser Ser Gly Phe Gly Ser
305          500          505          510
307 Gly Ser Gly Ser Gly Phe Gly Phe Gly Gly Ser Val Ser Gly Ser Ser
308          515          520          525
310 Ser Ser Lys Ile Ile Ser Thr Thr Thr Leu Asn Lys Arg Arg
311          530          535          540
314 <210> SEQ ID NO: 5
315 <211> LENGTH: 1625
316 <212> TYPE: DNA
317 <213> ORGANISM: Homo sapiens
319 <400> SEQUENCE: 5
320 tcctgcaggt ccctgtcact tctctgatag ctcccagctc gctctctgca gccatgattg 60
321 ccagacagca gtgtgtccga ggcgggcccc ggggcttcag ctgtgactcg gccattgtag 120
322 gcgggtggcaa gagaggtgcc ttcagctcag tctccatgtc tggaggtgct ggccgatgct 180
323 cttctggggg atttggcagc agaagcctct acaacctcag ggggaacaaa agcatctcca 240
324 tgagtgtggc taggtcacga caaggtgcct gctttggggg tgctggaggc tttggcactg 300
325 gtggcctttg taggtgattt gggggctcct tcagtggtaa ggggtggcct ggcttccccg 360
326 tctgccccgc tgggggaatt caggaggtca ccatcaacca gagcttgctc acccccctcc 420
327 acgtggagat tgacctgag atccagaaag tccggacgga agagcgcgaa cagatcaagc 480
328 tcctcaacaa caagtttgcc tccttcatcg agcaggtgog gttcctggag caacagaaca 540
329 aagtctctga gaccaagtgg aacctgctcc agcagcaggg cacaagttcc atctcaggca 600
330 caaacaacct tgagcctctt tttgagaatc acatcaacta cctgcggagc tacctggaca 660

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/976,782

DATE: 03/19/2002

TIME: 14:55:24

Input Set : A:\Cura-451.app

Output Set: N:\CRF3\03192002\I976782.raw

L:5313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108

L:5316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108

L:5340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108